

REMARKS

Claims 1, 2, and 6-12 are now pending in this application for which applicant seeks reconsideration.

Amendment

Claim 3 has been canceled, and independent claims 1, 10, and 11 have been amended to clarify that the rendering is to keep apparent change in blurring in response to the operation amount of the operation member even. Claim 2 also has been amended to further define the calculating feature. See paragraph 94 of the present specification (in corresponding USPGP 2004/0184795). No new matter has been introduced.

Art Rejection

Claims 1, 6, 8, 10, and 12 now stand rejected under 35 U.S.C. § 102(b) as anticipated by Hirasawa (USP 5,315,340), and claim 3 now stands rejected under 35 U.S.C. § 103(a) as unpatentable over Hirasawa. Claims 2 and 11 now stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hirasawa in view of Norita (USP 6,906,751). Claim 7 now stands rejected under § 103(a) as unpatentable over Hirasawa in view of Okawara (USPGP 2002/0041334). Lastly, claim 9 now stands rejected under § 103(a) as unpatentable over Hirasawa in view of applicant's admitted prior art (AAPA).

Applicant previously explained that Hirasawa fails to disclose or teach the claim feature of changing the focusing sensitivity depending on the depth of focus as the rendering is greater in the first depth of focus than the second depth of focus. Specifically, independent claims 1, 10, and 11 call for rendering a greater moving amount of the focus lens corresponding to the detected operation amount when the present state of the focus lens is in the first depth of focus than when the present state of the focus lens is in the second depth of focus.

In response, the examiner asserts that the passages set forth in column 4, line 56 to column 5, line 20 disclose automatically driving the lens to a manual mode in a short range for manually driving the focus lens in the direction of the shortest range depending on the position of the focus mode when switching from the automatic mode to the manual mode.

Specifically, the examiner alleges that "Hirasawa teaches ... depending on the position of the focus a mode selection switch switches from a[n] automatic mode ... to a manual mode in a short range ...". See the Final rejection, page 2 of the Detailed Action. Moreover, the examiner further alleges that "the current position of focus lens will determine if the system is in a[n] automatic lens driving mode or a manual driving mode" and "hence the driving speed will be

determined differently [to] move at different amounts at the two different position of the position of the focus lens."

Applicant disagree with the examiner's assessments of Hirasawa because the passages relied upon by the examiner merely discloses that the microcomputer 116 controls (i) a mode selecting switch 120 for switching between the automatic focus adjustment mode and the manual focus adjusting mode, (ii) an infinite direction driving switch 121 for manually driving the focus lens in the direction of infinity, and (iii) a shortest range direction drive switch 122 for manually driving the focus lens in the direction of the shortest range, (iv) selecting an automatic focus adjustment mode when the mode selection switch 120 is closed, and (v) switching to a manual focus adjustment mode when depressing the infinity/shortest range drive switch 121 or 122 while in the automatic focus adjustment mode.

Hirasawa merely discloses that when a photographer selects the automatic mode with the mode selection switch 120, the **photographer can manually drive** the focus lens in the direction of the shortest range **regardless of the position of the focus lens** by depressing a shortest range direction drive switch 122. In contrast to the examiner's assertion, Hirasawa simply fails to disclose or teach driving the focus lens in the direction of the shortest range **depending on the position of the focus lens** using the **mode selection switch**. Indeed, in Hirasawa, a manual focus adjustment is performed by depressing the infinity/shortest range drive switch 121 or 122 during the automatic focus adjustment mode, which interrupts the auto focus adjustment mode to the manual mode.

Moreover, Hirasawa discloses that an encoder detects the states, i.e., the moving directions, positions, speeds, and the like of the focus lens, **regardless of the system mode**. Nowhere does Hirasawa disclose or teach determining if the system is in an automatic lens driving mode or a manual driving mode depending on the current position of focus lens as alleged by the examiner.

In contrast to the examiner's assertions made in the Final rejection, the passages relied upon by the examiner state nothing regarding rendering a greater moving amount of the focus lens corresponding to the detected operating amount when the focus lens is in a first (deeper) depth of focus than when in a second (shallower) depth of focus. Indeed, Hirasawa does not disclose anywhere that the shortest range direction mode is associated with any particular depth of focus.

Moreover, independent claims 1, 10, and 11 have been further amended to clarify that the rendering is to keep apparent change in blurring in response to the operation amount of the

operation member even. This allows the operational feel experienced by a photographer when rotating an operating member in focusing the lens is kept the same for every kind of photographic scene. See paragraph 93 of the present specification (in USPGP 2004/184795).

In the claimed invention, the control unit (or controlling step) controls the moving amount of the focus lens depending on the depth of focus in the manual focus mode. The present inventor found that deeper the depth of focus, the harder to recognize the apparent change in blurring. When the focus lens is in the first depth of focus, when photographing a subject in a bright environment for example, which makes the aperture narrower, it is hard to recognize the apparent change in blurring. In this respect, the claimed control unit (or controlling step) can increase the responsiveness of the movement amount of the focus lens corresponding to the detected operating amount. On the other hand, when the focus lens is in the second depth of focus, when photographing a subject in a low light condition for example, which makes the aperture larger, it is easy to recognize the apparent change in blurring. In this respect, the claimed control unit (or controlling step) can lower the responsiveness of the movement amount of the focus lens corresponding to the detected operating amount.

The claimed invention thus can maintain the apparent change in blurring in response to the operation amount of the operating member even by changing the responsiveness of the movement amount of the focus lens. Hirasawa simply would not have disclosed or taught controlling the moving amount of the focus lens corresponding to the operation amount of the manual focus operating member when manually focusing the lens, as set forth in independent claims 1, 10, and 11.

As to dependent claim 2, Hirasawa merely discloses changing the moving amount of the focus lens in accordance with the operation amount of the manual focus operating member. Accordingly, Hirasawa does not disclose or teach controlling to set a responsiveness of the moving amount of the focus lens corresponding to the operation amount to a responsiveness standardized according to a depth of focus, as set forth in claim 2.

Norita relates to readout control of image signals obtained in an image sensor (CCD) of a digital camera (see column 1, lines 11-12). When the CCD stores a subject image to convert the charge into an electric image signal, the electric signal is stored as an image file in a recording medium (see column 1, lines 14-17, and column 5, line 36-38). In Norita, a plurality of image signals are sequentially captured corresponding to a plurality of exposure times with respect to a substantially same scene.

In rejecting claim 2, the examiner alleges that Norita's column 3, line 8, *et seq.* teaches a manual focus control aspect recited in claim 2. Applicant again disagrees. Norita merely discloses that during the manual exposure photography, a user can switch between sequential display and parallel display, by pressing the selector switch, and can display each image as a thumbnail image with more pixels skipped, in comparison with an image in the sequential display (see column 13, line 63 to column 14, line 3). Norita simply fails to disclose or teach the manual focus control as set forth in claim 2.

Conclusion

Applicant submits that the pending claims clearly distinguish over the applied references and are in condition for allowance. Should the examiner have any issues concerning this reply or any other outstanding issues remaining in this application, applicant urges the examiner to contact the undersigned to expedite prosecution.

Respectfully submitted,

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